

CLAIMS

What is claimed is:

Sub 1
A 2
3
1. A method for communicating between a first device and a second device using at least one variable parameter, said method comprising the steps of:

4 transmitting a message from the first device to the second device, said
5 message including information indicating a length of a sequence number
6 field included in each of a plurality of transmission frames;

7 receiving said message at the second device;

8 storing, in response to receiving said message, said information in the
9 second device;

10 transmitting said plurality of transmission frames from the first device;

11 receiving said plurality of transmission frames at the second device and
12 processing each sequence number field of said plurality of transmission
13 frames according to said information stored in the second device.

1 2. The method of claim 1, wherein said message, said information and
2 said plurality of transmission frames comprise a first message, second
3 information and, first plurality of transmission frames, respectively, and wherein
4 said method of further comprises the steps of:

5 transmitting, in response to receiving said first message, a
6 second message from the second device to said first device, said
7 second message including second information indicating a length
8 of a sequence number field included in each of a second plurality
9 of transmission frames;

10 receiving said second message at the first transceiving device;

11 storing in response to receiving said second message, said
12 second information in the first device;

13 transmitting said second plurality of transmission frames from the
14 second device; and

15 receiving said second plurality transmission frames at the first
16 transceiving device, and processing each sequence number field of said
17 second plurality of transmission frames according to said information
18 stored in said first device.

1 3. The method of claim 2, wherein said first and second messages
2 comprise RLP control frames, and wherein said first and second plurality of
3 transmission frames comprise RLP data frames.

1 4. A mobile station for operation in a telecommunications system having
2 a base station, wherein data is transmitted from the base station in
3 transmission frames, said mobile station comprising:

4 a receiver for receiving a message from the base station, said message
5 including information indicating the length of a sequence number
6 included in each of a sequence of transmission frames, said receiver
7 further for receiving said sequence of transmission frames, subsequent
8 to receiving said message;

9 a memory device; and

10 a controller coupled to said receiver and said memory device, said
11 controller for receiving said information from said receiver, storing said
12 information in said memory device, and processing each sequence
13 number field of said sequence of transmission frames according to said
14 information.

1 5. The mobile station of claim 4, wherein said sequence of transmission
2 frames comprises a first sequence of transmission frames, said message
3 comprises a first message, and, wherein data is transmitted from said mobile

4 station to said base station in a second sequence of transmission frames and
5 wherein said mobile station further comprises a transmitter for transmitting said
6 second sequence of transmission frames, and wherein said controller, further,
7 generates a second message, said second message including information
8 indicating the length of a sequence number included in each of said second
9 sequence of transmission frames, and initiates transmission of said second
10 message to said base station from said transmitter prior to transmitting said
11 second sequence of transmission frames.

1 6. The mobile station of claim 5, wherein said first and second
2 messages comprise RLP control frames and said first and second sequences
3 of transmission frames comprise RLP data frames.

1 7. A method for transmitting data between a mobile station and a base
2 station in a wireless communications system, comprising steps of:

3 prior to transmitting data, exchanging communications control
4 information between the mobile station and the base station, the control
5 information comprising a first field for specifying a length of a variable
6 length data frame sequence;

7 storing the exchanged information in both the mobile station and the
8 base station; and

9 subsequently transmitting frames of data in accordance with the stored
10 information.

8. A method as in claim 7, wherein the wireless communications
system is implemented as a DS-CDMA system.